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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,765	05/12/2005	Dirk Kornelis Gerhardus De Boer	NL02 1146 US	8888
24738 7590 06/25/2007 PHILIPS ELECTRONICS NORTH AMERICA CORPORATION INTELLECTUAL PROPERTY & STANDARDS 1109 MCKAY DRIVE, M/S-41SJ SAN JOSE, CA 95131			EXAMINER TRA, TUYEN Q	
			ART UNIT 2873	PAPER NUMBER
			MAIL DATE 06/25/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/534,765		DE BOER ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Tuyen Q. Tra		2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-15 is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kyu et al. (U.S. Pat. 6,815,016 B2).

a) With respect to claim 1, Kyu et al. discloses a electrically tunable microlens array formed by pattern polymerization of photopolymerizable mixtures containing liquid crystals comprising of a body (Figure 1, item 100) comprising a polymerizable electro-optical material (i.e. a photopolymerizable liquid crystal, column 1, lines 11-16) operable for being brought into an optically anisotropic state in response to an electric field (column 1, lines 45-65). However, Kyu et al. does not disclose subjecting the polymerizable electro-optical material to a non-uniform electric and/or magnetic field to establish electric field lines in accordance with a desired pattern within the electro-optical material, the electric field lines for aligning the material and bringing the material into a desired optically anisotropic state commensurate with the non-uniform electric field, and polymerizing the material in the optically anisotropic state providing the optically anisotropic body. It should be noted that the method of forming device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

- b) With respect to claim 2, Kyu et al. further discloses wherein the electro-optic material is a liquid crystal monomer (column 9, line 20).
  - c) With respect to claim 3, Kyu et al. further discloses wherein the body comprising the polymerizable material is provided on an alignment layer (column 4, line 24-27).
  - d) With respect to claim 4, Kyu et al. further discloses wherein the non-uniform electric field is applied by use of a plurality of spaced electrodes (108).
  - e) With respect to claim 5, Kyu et al. further discloses wherein the non-uniform electric field is applied by use at least one structured electrode (108) pair.
3. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kyu et al. (U.S. Pat. 6,815,016 B2), as applied to claim 1 above, in view of Van Der Wel et al. (WO 03/062912 A1).

With respect to claims 6-8, Kyu et al. discloses a electrically tunable microlens array formed by pattern polymerization of photopolymerizable mixtures containing liquid crystals comprising of a body (Figure 1, item 100) comprising a polymerizable electro-optical material (i.e. a photopolymerizable liquid crystal, column 1, lines 11-16) operable for being brought into an optically anisotropic state in response to an electric field (column 1, lines 45-65). Kyu et al. does not disclose subjecting the polymerizable electro-optical material to a non-uniform electric and/or magnetic field to establish electric field lines in accordance with a desired pattern within the electro-optical material, the electric field lines for aligning the material and bringing the material into a desired optically anisotropic state commensurate with the non-uniform electric field, and polymerizing the material in the optically anisotropic state providing the optically

anisotropic body. It should be noted that the method of forming device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

However, Kyu et al. does not disclose wherein non-uniform electric field is applied by use of a plurality of spaced electrodes arranged at one side of the body; and electrode(s) is part of the body. Within the same field of endeavor, Van Der Wel et al. discloses a display device with teaching a non-uniform electric field is applied by use of a plurality of spaced electrodes (7) arranged at one side of the body (i.e. top side of the body); wherein the electrode (6) is part of the body (see Figure 1).

It would have been obvious, therefore, at the time the invention was made to a person having skill in the art to construct the polymerizable electro-optical apparatus with electrodes for generating electric field such as disclosed by Kyu et al., with an electric field is applied by use of a plurality of spaced electrodes arranged at one side of the body; wherein the electrode (6) is part of the body such as discloses by Van Der Wel et al., for purpose of generating electric field for changing characteristics of the material.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kyu et al. (U.S. Pat. 6,815,016 B2), as applied to claim 1 above, in view of Kumar et al. (US Patent 6,864,931 B1).

Kyu et al. discloses a electrically tunable microlens array formed by pattern polymerization of photopolymerizable mixtures containing liquid crystals comprising of a body (Figure 1, item 100) comprising a polymerizable electro-optical material (i.e. a

photopolymerizable liquid crystal, column 1, lines 11-16) operable for being brought into an optically anisotropic state in response to an electric field (column 1, lines 45-65).

Kyu et al. does not disclose subjecting the polymerizable electro-optical material to a non-uniform electric and/or magnetic field to establish electric field lines in accordance with a desired pattern within the electro-optical material, the electric field lines for aligning the material and bringing the material into a desired optically anisotropic state commensurate with the non-uniform electric field, and polymerizing the material in the optically anisotropic state providing the optically anisotropic body. It should be noted that the method of forming device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight.

However, Kyu et al. does not disclose the anisotropic body is selected from the group consisting of a polariser, a compensation foil, and a micro-lens array. Kumar et al. disclose an electrically controllable liquid crystal microstructures in Figure 10 with the body is a microlens array (item 80, Figure 10).

It would have been obvious, therefore, at the time the invention was made to a person having skill in the art to construct the polymerizable electro-optical apparatus with an optically anisotropic body such as disclosed by Kyu et al., with the body is microlens array such as discloses by Kumar et al., for purpose of focusing light on display device.

### **Response to Arguments**

5. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new grounds of rejection. Method claims 10-15 now are allowed.

Applicant admitted that a part of claim 1 is method claim (as shown in claim 10). It should be noted that the method of forming device is not germane to the issue of patentability of the device itself. Applicant's claim 1 do not distinguish over the Kyu et al. reference regardless of the method used to form the anisotropic body because only the final product is relevant, not the method of making such as "subjecting or polymerizing". Note that a "product by method" claim is directed to the product per se, no matter how actually made, In re Hirao, 190 USPQ 15 at 17 (footnote 3). See also In re Brown, 173 USPQ 685; In re Luck, 177 USPQ 523; In re Fessmann, 180 USPQ 324; In re Avery, 186 USPQ 161; In re Wertheim, 191 USPQ 90 (209 USPQ 554 does not deal with this issue); and In re Marosi et al., 218 USPQ 289, all of which make it clear that it is the patentability of the final product per se which must be determined in a "product by method" claim, and not the patentability of the method, and that an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by method" claims or not. Note that applicant has the burden of proof in such cases, as the above caselaw makes clear. See also MPEP 706.03(e).

#### **Allowable Subject Matter**

6. Claims 10-15 are allowed.

The reason for allowance is that prior art fails teach or fairly suggest the method of subjecting the polymerizable electro-optical and/or magneto-optical material to a non-uniform electric and/or magnetic field to establish electric and/or magnetic field lines in accordance with a desired pattern within the electro-optical and/or magneto-optical material, the electric and/or magnetic field lines being of sufficient strength for aligning

the material and bringing the material into a desired optically anisotropic state commensurate with the non-uniform electric and/or magnetic field, and polymerising the material in said optically anisotropic state to provide the optically anisotropic body.

**Conclusion**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyen Q. Tra whose telephone number is 571-272-2343. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT

June 12, 2007

  
HUNG DANG  
PRIMARY PATENT EXAMINER